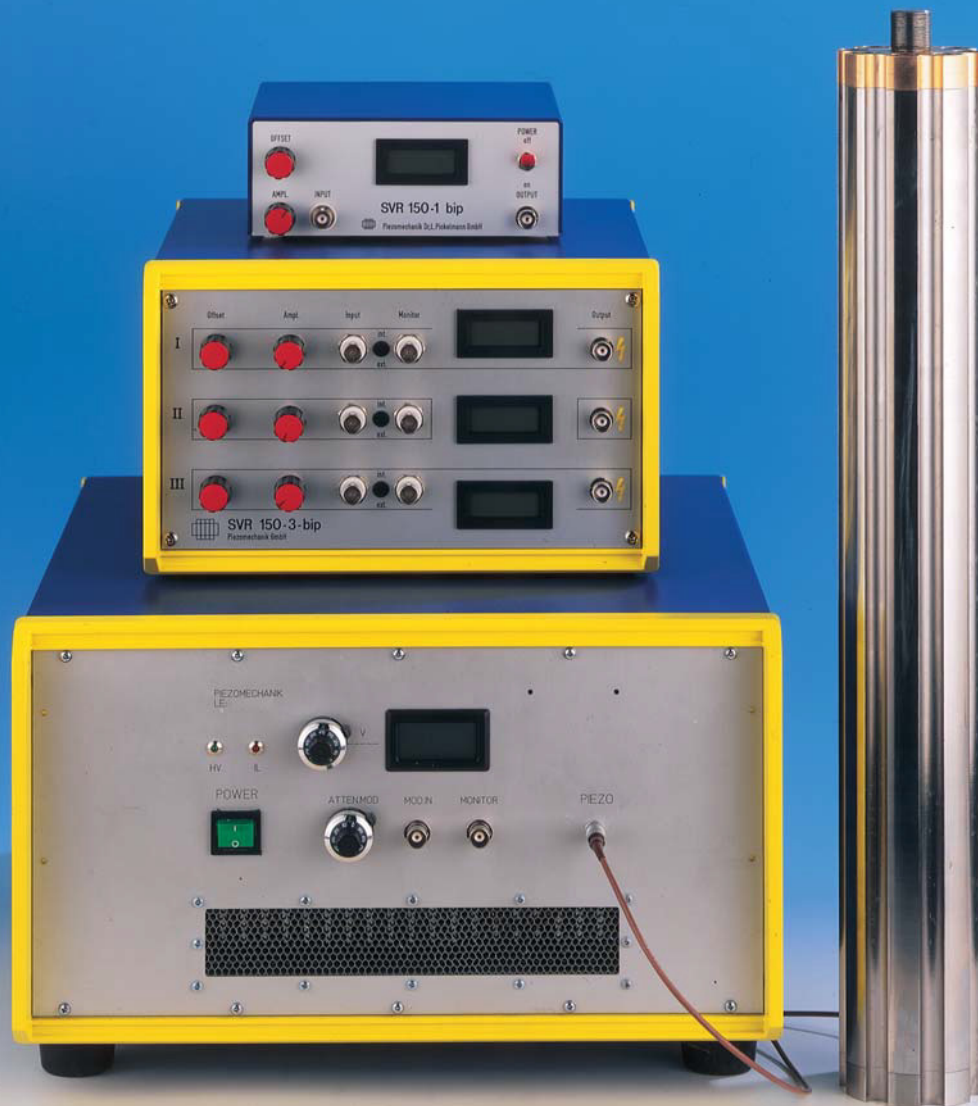


## Electronic Supplies for Piezomechanics: Technical Data



# Content

## Analogue Amplifiers SVR

|                                      |   |
|--------------------------------------|---|
| SVR-150: -30 V / +150 V, 60 mA ..... | 3 |
| SVR-200: -50 V / +200 V, 45 mA ..... | 4 |
| SVR-150bip: +/-150 V, 30 mA .....    | 5 |

## Analogue High Power Amplifiers LE

|   |   |
|---|---|
| LE 150/100 EBW: 0 V / +150 V, 1200 mA, 70 KHz ..... | 6 |
| LE 200/070 EBW: 0 V / +200 V, 700 mA .....          | 7 |

|                          |   |
|--------------------------|---|
| <b>Accessories</b> ..... | 8 |
|--------------------------|---|

## **PIEZOMECHANIK offers on request**

High power analogue amplifiers 150V/200V up to 5 Amperes

# Analog Amplifiers SVR

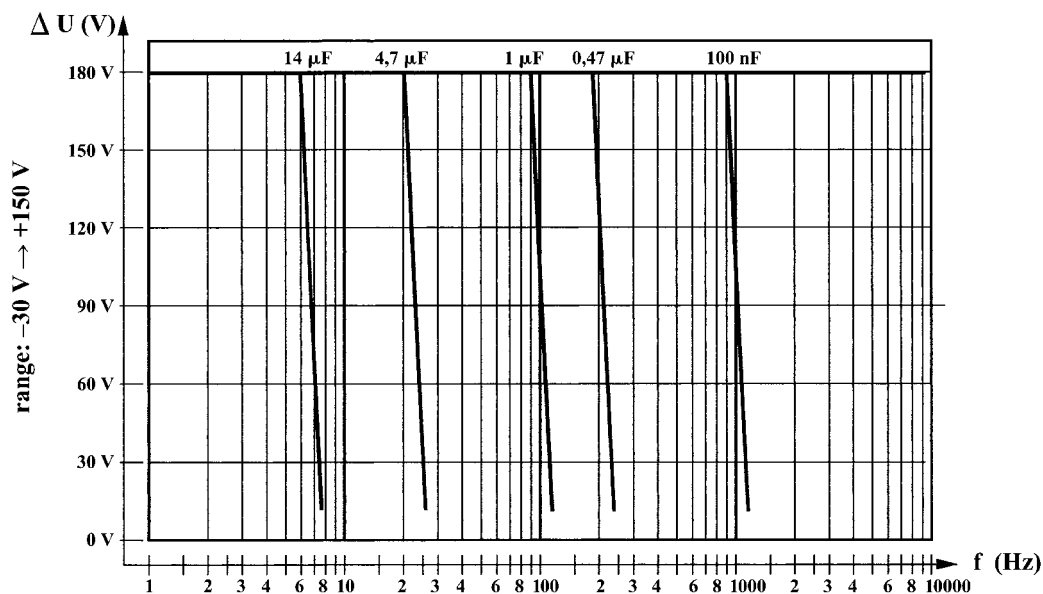
Low voltage/high voltage types available  
 Lowest noise levels  
 Semibipolar operation  
 for enhanced actuator stroke/force generation

**SVR 150/1 (single channel)**  
**SVR 150/3 (3 independent channels)**

Voltage range:  
 -30 V thru +150 V (semibipolar)

Manual setting of DC-Offset  
 (superimposed to external signal)

Variable attenuation



## Input:

Signal: +/-5 V (+/-10 V with attenuation)  
 Impedance: 5 kOhms  
 Connector: BNC

## Output:

Connector: BNC  
 Voltage total: -30 V thru +150 V  
 DC-Offset range: -30 V thru +150 V  
 Gain: 30 (without attenuation)  
 Max. current: 60 mA  
 Noise: 0.3 mVpp (for 4.7 Farad load)  
 Display: LCD  
 Dimensions W x D x H (mm):  
 single channel: 165 x 200 x 65  
 3-channels: 260 x 320 x 155  
 Weight:  
 single channel: 1.75 kg  
 3-channels: 4.7 kg

## Additional features of 3 channel SVR 150/3 amplifier:

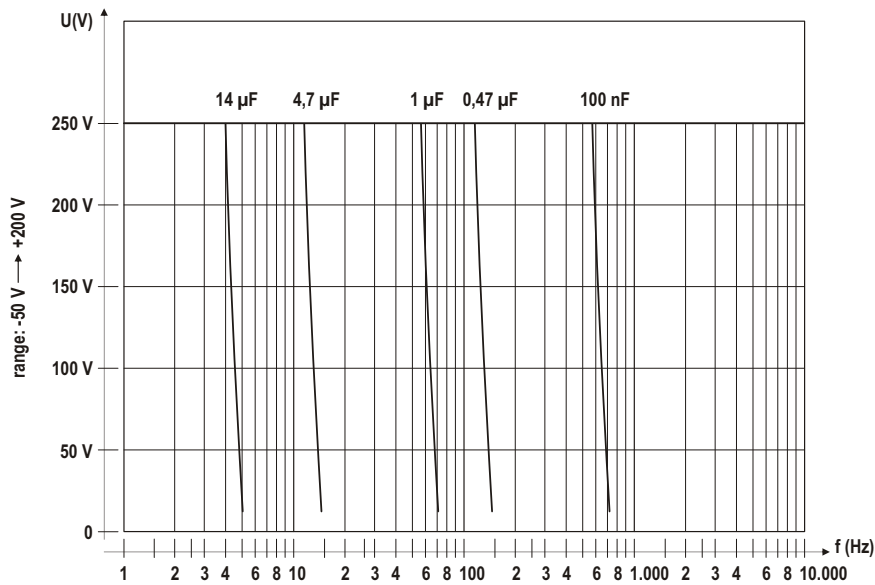
Monitor BNC output per channel:  
 shows 1:1000 piezo voltage  
 LC-Display per channel

**SVR 200/1 (single channel)**  
**SVR 200/3 (3 independent channels)**

Voltage range:  
 -50 V thru + 200 V

Manual setting of DC-Offset  
 (superimposed to external signal)

Variable attenuation



**Input:**

Signal: +/-5 V (+/-10 V with attenuation)  
 Impedance: 5 kOhms  
 Connector: BNC

**Output:**

Connector: BNC  
 Voltage total: -50 V thru +200 V  
 DC-Offset range: -50 V thru +200 V  
 Gain: 40 (without attenuation)  
 Max. current: 45 mA  
 Noise: 1 mVpp (for 4 Farad load)  
 Display: LCD  
 Dimensions W x D x H (mm):  
 single channel: 165 x 200 x 65  
 3-channels: 260 x 320 x 155  
 Weight:  
 single channel: 1.75 kg  
 3-channels: 4.7 kg

**Additional features of 3 channel SVR 200/3 amplifier:**

Monitor BNC output per channel:  
 shows 1:1000 piezo voltage  
 LC-Display per channel

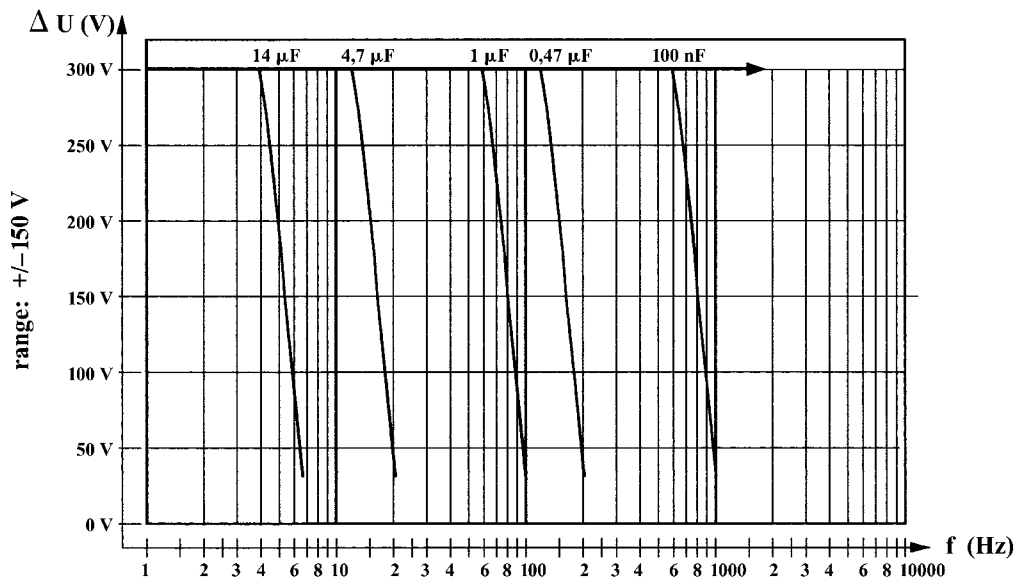
# Bipolar Analog Amplifiers SVR

For operation of piezo bimorphs  
 Bipolar stacks  
 Shear elements  
 Other symmetric voltage activation

**SVR 150bip/1 (single channel)**  
**SVR 150bip/3 (3 independent channels)**

Voltage range:  
 -150 V thru +150 V

Manual setting of DC-Offset  
 (superimposed to external signal)



## Input:

Signal: +/-5 V (+/-10 V with attenuation)  
 Impedance: 5 kOhms  
 Connector: BNC

## Output:

Connector: BNC  
 Voltage total: -150 V thru +150 V  
 DC-Offset range: -150 V thru +150 V  
 Gain: 30 (without attenuation)  
 Max. current: 30 mA  
 Noise: 0.3 mVpp (for 4.7 Farad load)  
 Display: LCD  
 Dimensions W x D x H (mm):  
 single channel: 165 x 200 x 65  
 3-channels: 260 x 320 x 155  
 Weight:  
 single channel: 1.75 kg  
 3-channels: 4.7 kg

## Additional features of

### 3 channel SVR 150bip/3 amplifier:

Monitor BNC output per channel:  
 shows 1:1000 piezo voltage  
 LC-Display per channel

# Analogue High Power Amplifiers LE

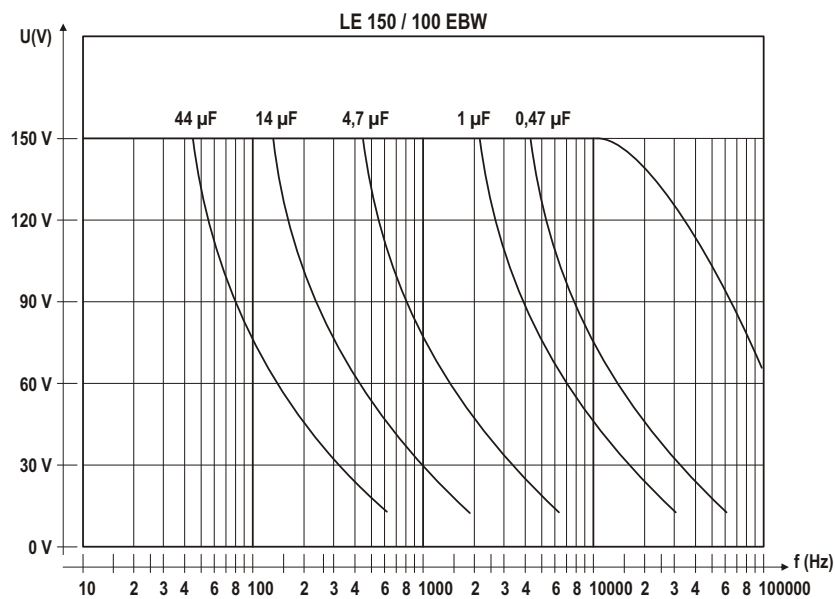
## LE 150/100 EBW

Voltage range:  
0 V/+150 V

Manual setting of DC-Offset  
(superimposed to external signal)

Variable attenuation

70 kHz bandwidth (-3 dB)



### Input:

Signal:  $\pm 5$  V ( $\pm 10$  V with attenuation)  
Impedance: 5 kOhms  
Connector: BNC

### Output:

Connector: BNC  
Voltage total: 0 V thru +150 V  
DC-Offset range: 0 V thru +150 V  
Gain: 30 (without attenuation)  
Peak current: 1200 mA  
Average current: 350 mA  
Noise: 20 mVpp (for 4.7 Farad load)  
Display: LCD  
Dimensions W x D x H (mm):  
260 x 320 x 165  
Weight: 6.8 kg

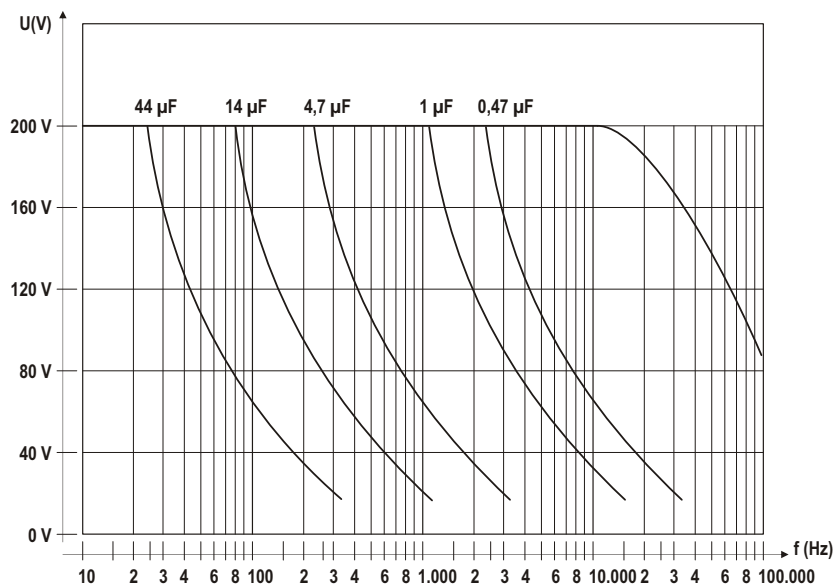
# LE 200/070 EBW

Voltage range:  
0 V/+200 V

Manual setting of DC-Offset  
(superimposed to external signal)

Variable attenuation

70 kHz bandwidth (-3 dB)



## Input:

Signal:  $\pm 5$  V ( $\pm 10$  V with attenuation)  
Impedance: 5 kOhms  
Connector: BNC

## Output:

Connector: BNC  
Voltage total: 0 V thru +200 V  
DC-Offset range: 0 V thru +200 V  
Gain: 40 (without attenuation)  
Peak current: 700 mA  
Average current: 250 mA  
Noise: 20 mVpp (for 4.7 Farad load)  
Display: LCD  
Dimensions W x D x H (mm):  
320 x 260 x 165  
Weight: 7 kg

# Accessories

PIEZOMECHANIK supplies a wide range of connecting systems, adaptors, extension cable to make the installation and compatibility of components as easy as possible.

When a complete actuator/amplifier system is ordered, the actuators will be equipped with the plugs corresponding the amplifier's connector.

Further adaptors are available for the combination of different connector systems.



## Adaptors:

|               |                                      |
|---------------|--------------------------------------|
| Plug          | coupler                              |
| BNC           | LEMOSA 00.250 (low voltage systems)  |
| BNC           | LEMOSA 0S.250 (high voltage systems) |
| LEMOSA 00.250 | BNC                                  |
| LEMOSA 0S.250 | BNC                                  |

## Coaxial cable RG 178 with plug – one end blunt, length 1.5 m standard, other lengths on request

LEMOSA plug 00.250  
LEMOSA plug 0S.250  
BNC

Extension cables with plug and coupling end, length standard 2 m, other lengths on request

LEMOSA 00.250 system  
LEMOSA 0S.250 system

Extension cables combining different connector systems e.g. BNC-LEMOSA on request.



**Low voltage co-fired multilayer stacks, rings and chips for actuation**  
(without casing)

Low voltage actuators with casings, high voltage actuators [Check main catalogue](#)

*Piezomechanik GmbH*

*Piezomechanik GmbH*

**Low Voltage Piezo Actuators**

Product range and technical data

*Piezomechanik GmbH*

**Piezoactuated Optomechanics**  
Piezo Mirror-shifters  
Piezodriven Translation Stages

*Piezomechanik GmbH*

**Position Feedback control electronics**  
**PosiCon.an**  
for piezoactuators  
(low voltage and high voltage actuators)

Alcon  
PosiCon 1005 with actuator PS 100/1420 VS 20, option position detection.  
Sensor: white cable and actuator: black cable are connected to control.

*Piezomechanik GmbH*

**Strain Gage Amplifiers**  
DMS 01  
DMS 03

For  
High Dynamic  
High Resolution  
Position Measurements  
by Piezo Borne Strain  
Gage Detectors

*Piezomechanik GmbH*

**First Steps towards Piezoaction**

Thermograph of a dynamically operated piezo stack

